

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. – 58. (Cancelled)

59. (New) A computer accessible memory medium that stores program instructions executable to:

establish a network connection with client software over a network;

receive user input from the client software indicating a graphical program for execution;

execute the graphical program, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, and wherein said executing the graphical program comprises executing the block diagram; and

send information describing a user interface of the graphical program over the network to the client software after establishing the network connection with the client software;

send information regarding the block diagram of the graphical program over the network to the client software after establishing the network connection with the client software, wherein the information regarding the block diagram is useable by the client software to display the block diagram on a client computer system;

wherein the user interface is operable to facilitate interaction between a user and the graphical program over the network.

60. (New) The computer accessible memory medium of claim 59, wherein the program instructions are further executable to:

provide information indicating a plurality of graphical programs to the client software over the network, wherein the information indicating a plurality of graphical

programs is usable by the client software to display information indicating the plurality of graphical programs; and

wherein, in indicating the graphical program for execution, the user input selects the graphical program from the plurality of graphical programs.

61. (New) The computer accessible memory medium of claim 59, wherein the program instructions are further executable to:

receive user input to the graphical program from the client software over the network; and

provide the user input to the graphical program;

wherein the graphical program is operable to respond to the user input.

62. (New) The computer accessible memory medium of claim 59, wherein the graphical program produces a first output state; and wherein said sending information describing a user interface of the graphical program comprises sending information indicative of the first output state.

63. (New) The computer accessible memory medium of claim 62, wherein the graphical program produces a second output state after the graphical program produces the first output state; and

wherein the program instructions are further executable to send a user interface update indicating the second output state to the client software.

64. (New) The computer accessible memory medium of claim 59, wherein the program instructions are further executable to:

establish a network connection with client software associated with each of a plurality of client computer systems; and

send information describing a user interface of the graphical program over the network to the client software of each of the plurality of client computer systems after establishing the network connection with the client software of each of the plurality of client computer systems.

65. (New) The computer accessible memory medium of claim 64, wherein the program instructions are further executable to:

send information regarding the block diagram of the graphical program over the network to the client software of each of the plurality of client computer systems after establishing the network connection with the client software of each of the plurality of client computer systems, wherein the information regarding the block diagram is useable by the client software of each of the plurality of client computer systems to display the block diagram.

66. (New) The computer accessible memory medium of claim 59,
wherein the graphical program executes to perform a measurement or automation function.

67. (New) The computer accessible memory medium of claim 59, wherein the network is the Internet.

68. (New) The computer accessible memory medium of claim 59,
wherein the information describing the user interface is useable by the client software to display the user interface of the graphical program on a web browser; and
wherein the information regarding the block diagram is useable by the client software to display the block diagram on the web browser.

69. (New) The computer accessible memory medium of claim 59, wherein the program instructions are further executable to:

receive user input specifying an edit to the block diagram from the client software over the network; and

edit the block diagram according to the user input specifying the edit.

70. (New) The computer accessible memory medium of claim 59,

wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram.

71. (New) The computer accessible memory medium of claim 59, wherein the program instructions are further executable to:

receive input of at least one input variable from the client software over the network;

the block diagram executing using the input of the at least one input variable;

the block diagram generating an output of at least one output variable; and

providing the output of the at least one output variable to the client software over the network for display.

72. (New) The computer accessible memory medium of claim 59,

wherein the graphical program implements a virtual instrument; and

wherein the user interface of the graphical program comprises a front panel of the virtual instrument.

73. (New) A method for executing a graphical program on a first computer and providing a user interface of the graphical program for display on a second computer, the method comprising:

executing the graphical program on the first computer, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, wherein the first computer and the second computer are connected over a network, and wherein said executing the graphical program comprises executing the block diagram;

providing information describing the user interface of the graphical program to the second computer during said executing, wherein said providing comprises the first

computer providing the information describing the user interface of the graphical program over the network to the second computer, and wherein the information describing the user interface is useable by the second computer to display the user interface of the graphical program on the second computer; and

providing information regarding the block diagram of the graphical program to the second computer over the network, wherein said providing comprises the first computer providing the information regarding the block diagram of the graphical program over the network to the second computer, wherein the information regarding the block diagram is useable by the second computer to display the block diagram on the second computer;

wherein the user interface facilitates interaction between a user of the second computer and the graphical program executing on the first computer.

74. (New) The method of claim 73, further comprising:

providing information describing the user interface of the graphical program to a plurality of computers over the network during said executing, where the information describing the user interface of the graphical program is useable by each of the plurality of computers to display the user interface of the graphical program.

75. (New) The method of claim 73,

wherein the information describing the user interface is useable by the second computer to display the user interface of the graphical program on a web browser of the second computer; and

wherein the information regarding the block diagram is useable by the second computer to display the block diagram on the web browser of the second computer.

76. (New) The method of claim 73, further comprising:

the graphical program executing on the first computer responding to user input received to the graphical program via the displayed user interface on the second computer; wherein the user input is provided to the first computer over the network.

77. (New) The method of claim 73, wherein the graphical program produces a second output state after the graphical program produces a first output state, the method further comprising:

providing a user interface update over the network indicating the second output state, where the user interface update is useable by the second computer to update the user interface displayed on the second computer.

78. (New) The method of claim 73, further comprising:

receiving user input specifying an edit to the block diagram to the first computer from the second computer over the network; and

editing the block diagram according to the user input specifying the edit, wherein said editing is performed by the first computer.

79. (New) The method of claim 73, wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram, the method further comprising:

receiving input of at least one input variable to the first computer from the second computer over the network;

the block diagram executing using the input of the at least one input variable;

the block diagram generating an output of at least one output variable; and

providing the output of the at least one output variable to the second computer over the network, wherein the output is displayable on the second computer.

80. (New) The method of claim 73,

wherein the graphical program implements a virtual instrument; and

wherein the user interface of the graphical program comprises a front panel of the virtual instrument.

81. (New) A system for executing a graphical program, the system comprising:

a first computer, comprising:

a processor; and

a memory, coupled to the processor;

wherein the first computer is operable to couple to a network;

wherein the memory stores a graphical program, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function;

wherein the first computer is operable to execute the graphical program and provide information describing a user interface of the graphical program over the network to a second computer during said executing, wherein said executing the graphical program comprises executing the block diagram;

wherein the information describing the user interface over the network is useable by the second computer to display the user interface of the graphical program; and

wherein the user interface facilitates interaction between a user of the second computer and the graphical program executing on the first computer;

wherein the first computer is operable to provide information regarding the block diagram of the graphical program over the network to the second computer, wherein the information regarding the block diagram is useable by the second computer to display the block diagram on the second computer.

82. (New) A computer accessible memory medium that stores program instructions executable to:

receive user input at a first computer indicating a graphical program, wherein the graphical program is stored on a server computer, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function;

provide the user input indicating the graphical program over a network to the server computer;

receive information describing a user interface of the graphical program from the server computer over the network during execution of the graphical program on the server computer;

receive information regarding the block diagram of the graphical program from the server computer over the network;

display the user interface of the graphical program at the first computer based on the information describing a user interface; and

display the block diagram at the first computer based on the information regarding the block diagram;

wherein the user interface facilitates interaction between a user and the graphical program executing on the server computer.

83. (New) The computer accessible memory medium of claim 82,

wherein the graphical program executes to perform a measurement or automation function.

84. (New) The computer accessible memory medium of claim 82, wherein the program instructions are further executable to:

establish a network connection with the server computer over the network after said receiving user input indicating the graphical program;

wherein said receiving information describing the user interface and said receiving information regarding the block diagram are performed after said user input indicating the graphical program and after said establishing a network connection.

85. (New) The computer accessible memory medium of claim 84,

wherein the graphical program is already executing on the server computer when said establishing a network connection occurs.

86. (New) The computer accessible memory medium of claim 82,

wherein to display the user interface of the graphical program, the program instructions are executable to display the user interface of the graphical program on a web browser.

87. (New) The computer accessible memory medium of claim 82, wherein the program instructions are further executable to:

- receive user input to the graphical program via the displayed user interface; and
- provide the user input to the server computer over the network for input to the graphical program executing on the server computer.

88. (New) The computer accessible memory medium of claim 82, wherein the graphical program produces a first output state; and wherein said displaying the user interface includes displaying the user interface illustrating the first output state.

89. (New) The computer accessible memory medium of claim 82, wherein the graphical program produces a second output state after the graphical program produces a first output state, wherein the program instructions are further executable to:

- receive a user interface update over the network indicating the second output state; and
- update the user interface in response to the user interface update.

90. (New) The computer accessible memory medium of claim 82, wherein the program instructions are further executable to:

- receive user input specifying an edit to the block diagram; and
- provide the user input specifying the edit to the server computer over the network; wherein the first computer is operable to edit the block diagram according to the user input specifying the edit.

91. (New) The computer accessible memory medium of claim 82,

wherein said indicating the graphical program comprises providing a uniform resource locator (URL).

92. (New) The computer accessible memory medium of claim 82, wherein the program instructions are further executable to:

display information indicating a plurality of graphical programs on the first computer;

wherein, in indicating the graphical program on the first computer, the user input selects the graphical program from the plurality of graphical programs.

93. (New) The computer accessible memory medium of claim 82,

wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram.

94. (New) The computer accessible memory medium of claim 82, wherein the program instructions are further executable to:

receive user input manipulating input of at least one input variable;

provide the user input of the at least one input variable to the server computer over the network;

receive output of at least one output variable from the server software over the network, wherein the output is generated by the block diagram executing using the input of the at least one input variable; and

display the output of the at least one output variable.

95. (New) The computer accessible memory medium of claim 82,

wherein the graphical program implements a virtual instrument; and

wherein the user interface of the graphical program comprises a front panel of the virtual instrument.

96. (New) A method for displaying a graphical user interface and block diagram of a graphical program on a second computer in response to execution of the graphical program on a first computer, the method comprising:

receiving user input to the second computer, wherein the user input indicates the graphical program on the first computer, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, wherein the first computer and the second computer are connected over a network;

receiving information describing the user interface of the graphical program at the second computer from the first computer over the network during execution of the graphical program on the first computer;

receiving information regarding the block diagram of the graphical program at the second computer from the first computer over the network;

displaying the user interface of the graphical program on the second computer based on the information describing the user interface; and

displaying the block diagram on the second computer, using the information regarding the block diagram;

wherein the user interface facilitates interaction between a user of the second computer and the graphical program executing on the first computer.

97. (New) The method of claim 96, further comprising:

establishing a network connection with the first computer over the network after said receiving user input indicating the graphical program;

wherein said receiving information describing the user interface and said receiving information regarding the block diagram are performed after said user input indicating the graphical program and after said establishing a network connection.

98. (New) The method of claim 96,
wherein displaying the user interface of the graphical program comprises displaying the user interface of the graphical program on a web browser.

99. (New) The method of claim 96, further comprising:
receiving user input to the graphical program via the displayed user interface; and
providing the user input to the first computer over the network for input to the graphical program executing on the first computer.

100. (New) The method of claim 96, further comprising:
receiving user input specifying an edit to the block diagram; and
providing the user input specifying the edit to the first computer over the network;
wherein the user input specifying the edit is useable by the first computer to edit the graphical program.

101. (New) The method of claim 96,
wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram.

102. (New) The method of claim 96, further comprising:
receiving user input manipulating inputs of at least one input variable;
providing the user input of the at least one input variable to the first computer over the network;
receiving output of at least one output variable from the first computer, wherein the output is generated by the block diagram executing using the input of the at least one input variable; and
displaying the output of at least one output variable on the second computer.

103. (New) The method of claim 96,
wherein the graphical program implements a virtual instrument; and
wherein the user interface of the graphical program comprises a front panel of the virtual instrument.

104. (New) A system, comprising:
a processor; and
a memory, coupled to the processor;
a network port operable to couple to a network;
wherein the memory stores program instructions executable by the processor to:
 receive user input specifying a graphical program, wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function;
 provide the user input specifying the graphical program over a network to a server computer;
 receive information describing a user interface of the graphical program from the server computer over the network during execution of the graphical program on the server computer;
 receive information regarding the block diagram of the graphical program from the server computer over the network;
 display the user interface of the graphical program based on the information describing a user interface; and
 display the block diagram based on the information regarding the block diagram;
wherein the user interface facilitates interaction between a user and the graphical program executing on the server computer.